GENERAL Notes

1. Concrete design should be in according with provision of ACI 318-11M
2. The compressive strength of concrete at 28 days (fc) shall not be less than 30 N/mm2 and shall be determined by tests of standard 15x15x15mm Cube.
3. Reinforcement steel shall confirm to ASTM A615,A616 or A617, All bars shall be grade 60 (fy=420 Mpa)
4. Placing of reinforcement shall be according to ACI 315-911 detailing manual.
5. Minimum cover over bar

   5.1. Slabs 25mm

   5.2 Beams 40mm

   5.3 Footing 75mm
6. The ground water should be pumped out if needed until the construction reaches the natural ground level.
7. Foundation

   7-1 Bearing capacity under the foundation level assumed 6 ton/m2

   7-2 Sulphate resistant Portland cement (type v) shall be well in all concrete works in contact with earth or below D.P.C level with minimum cement content on (400 kg/m3)

   7-3 Maximum free water cement ratio of (0.40 by weight)

   7-4 Adequate coating of inert materials such as sulphat should protect all concrete works that are in contact with subsoil.

   7-5 All building under DPC must be use cement plastering for both faces.

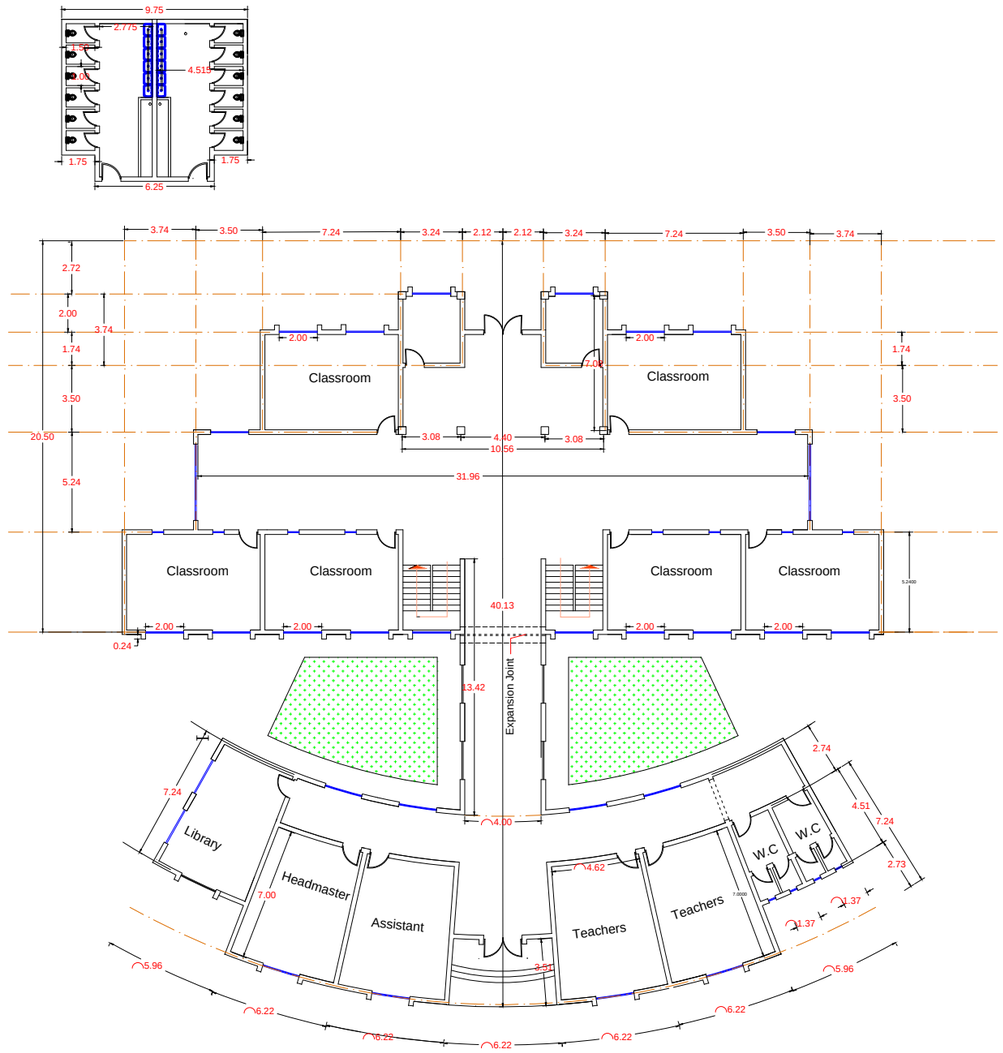
8-Mix design & casting of concrete should be so carried out them min. shrinkage is to occurred

9-Closed stirrups are used in beam and extend along the span

10-Lap all splices as specially called for but at least 50 bar diameter (50db) unless otherwise called for

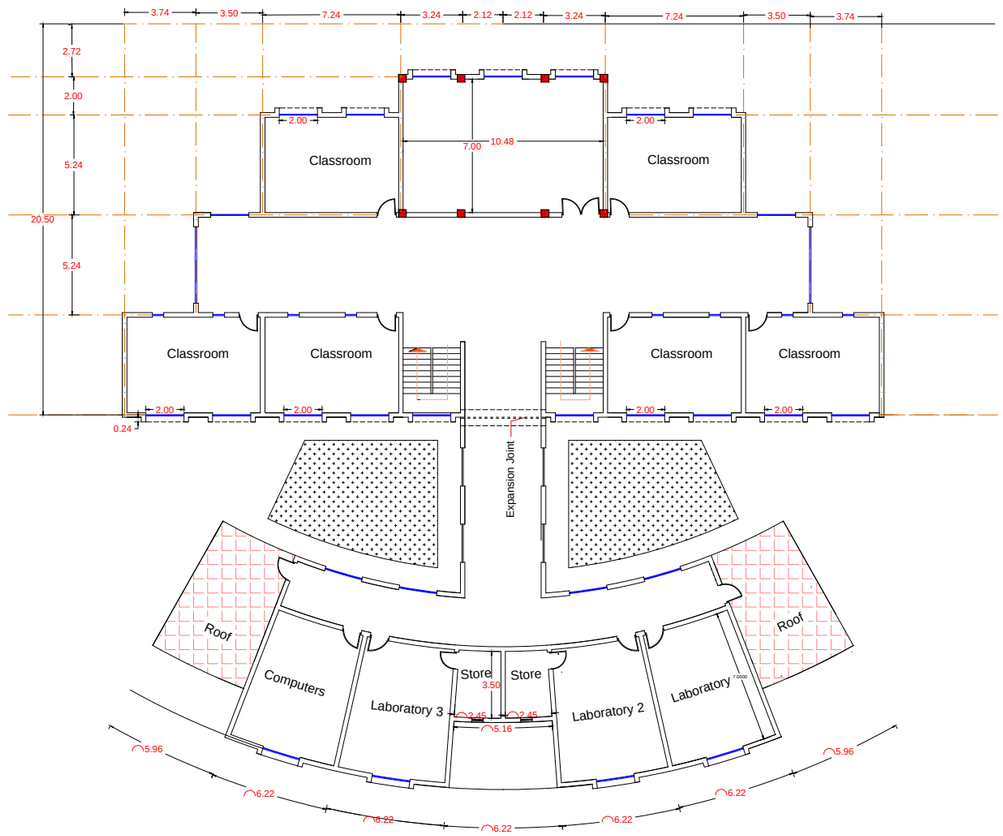
11-In two-way soil slab, place short bars

| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : General Notes | | |
| Scale NTS | Date | DWG No. |



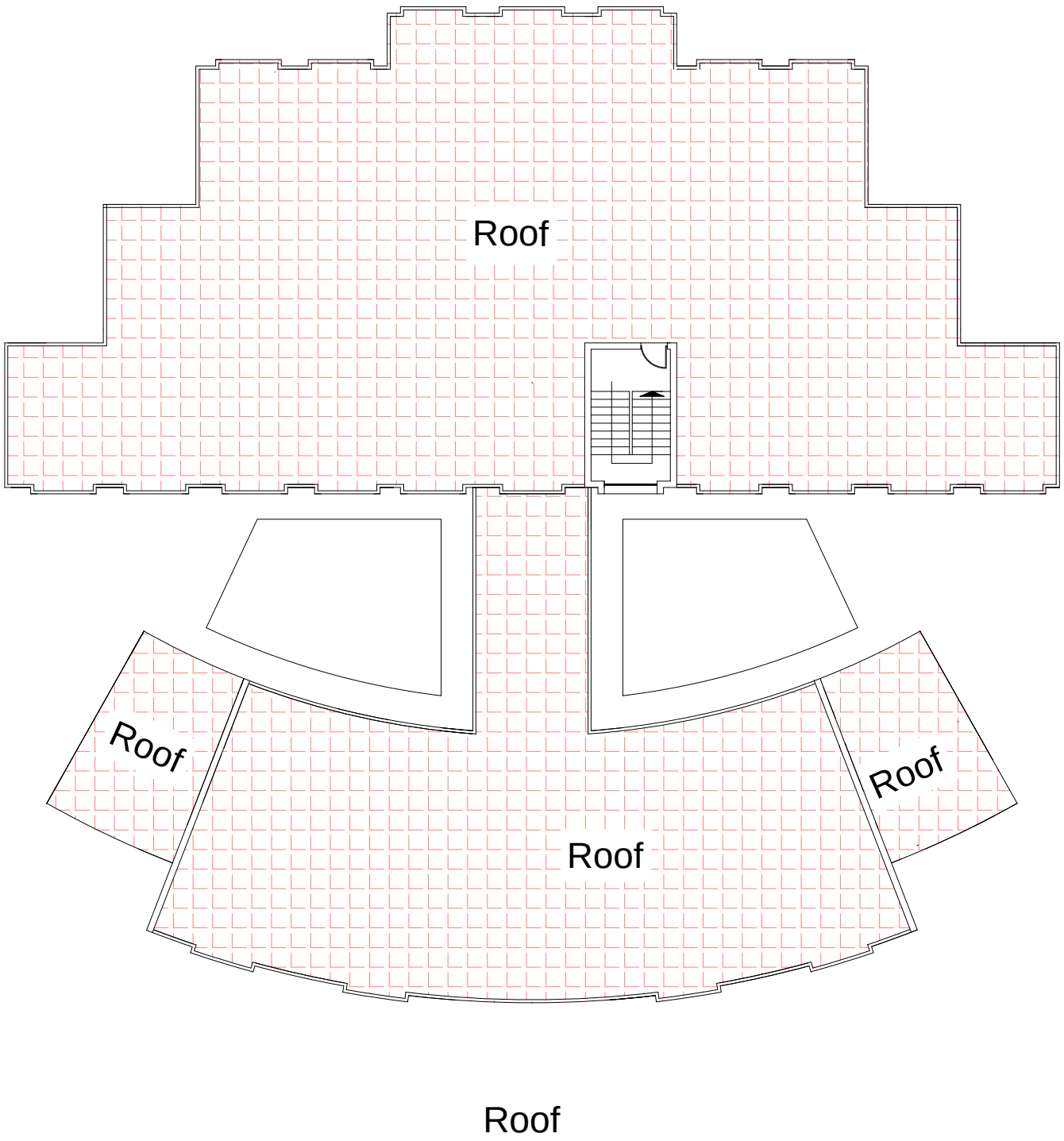

Ground Floor Plan

| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Ground Floor Plan | | |
| Scale NTS | Date | DWG No. 01 |

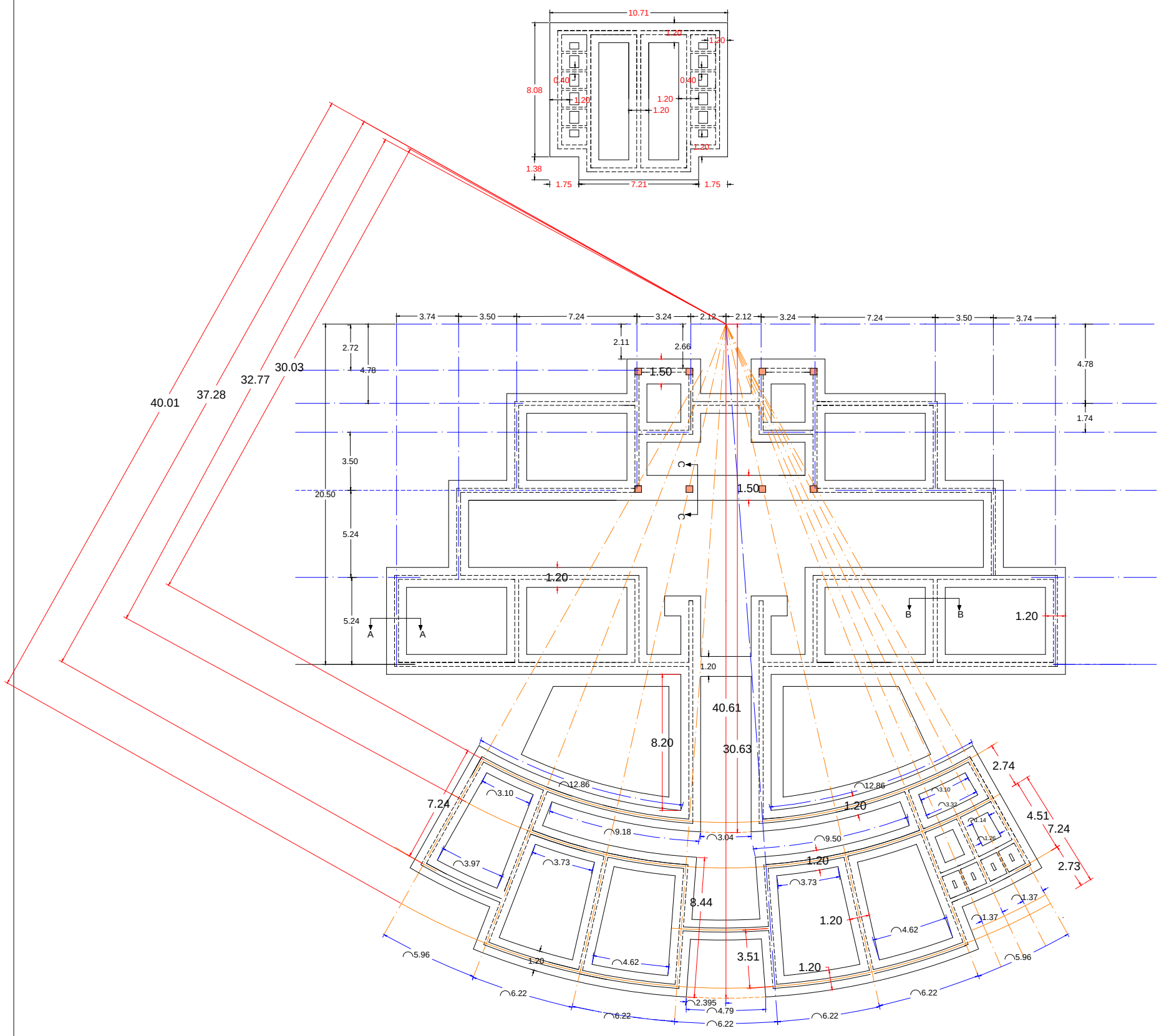



First Floor Plan

| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : First Floor Plan | | |
| Scale NTS | Date | DWG No. 02 |

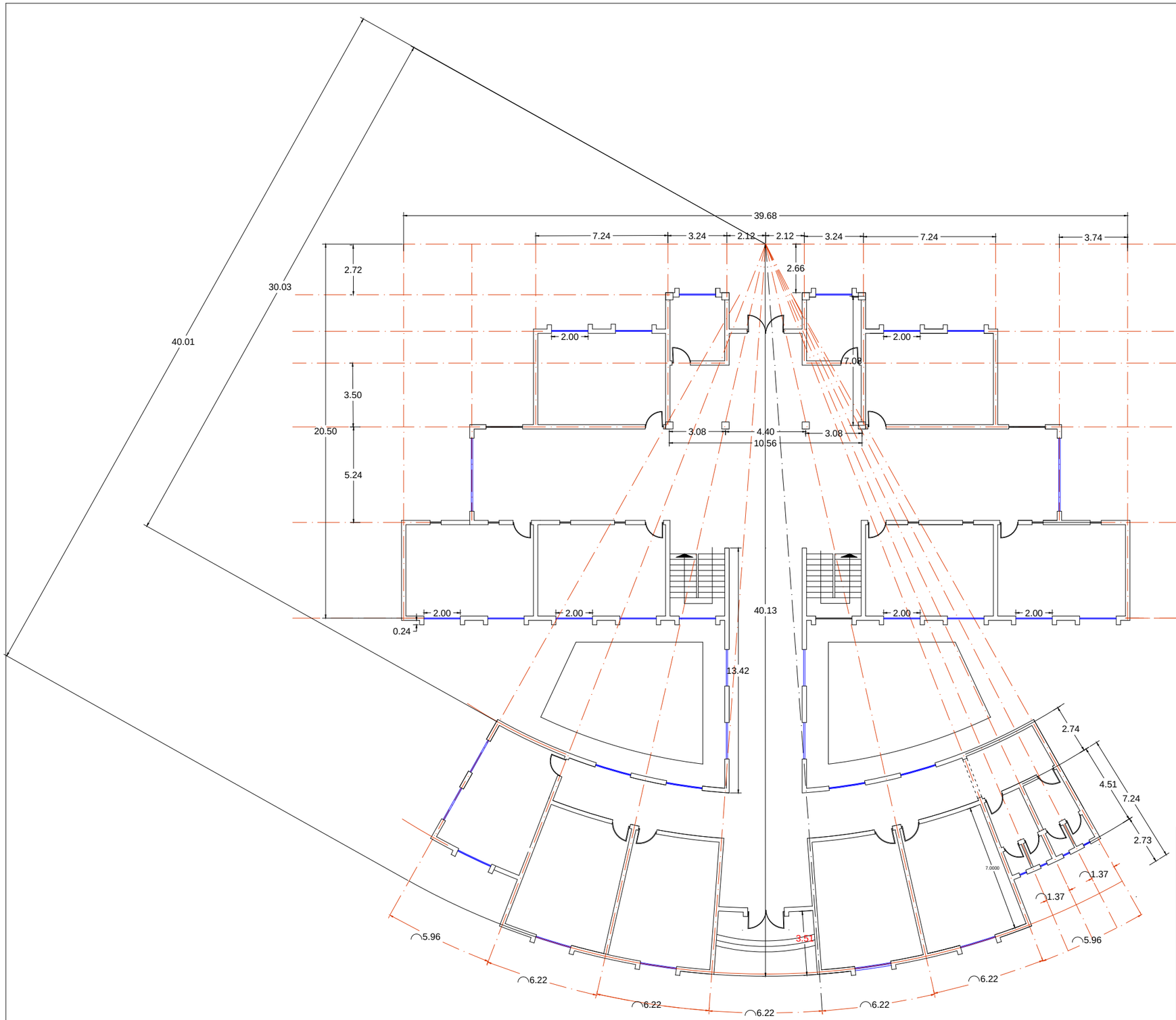



| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Roof Plan | | |
| Scale NTS | Date | DWG No. 03 |




Foundation Plan

| | | |
|---|---|---|
| Typical drawings for Diyala School<br>Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title :<br>Foundation Plan | | |
| Scale<br>NTS | Date | DWG No.<br>04 |

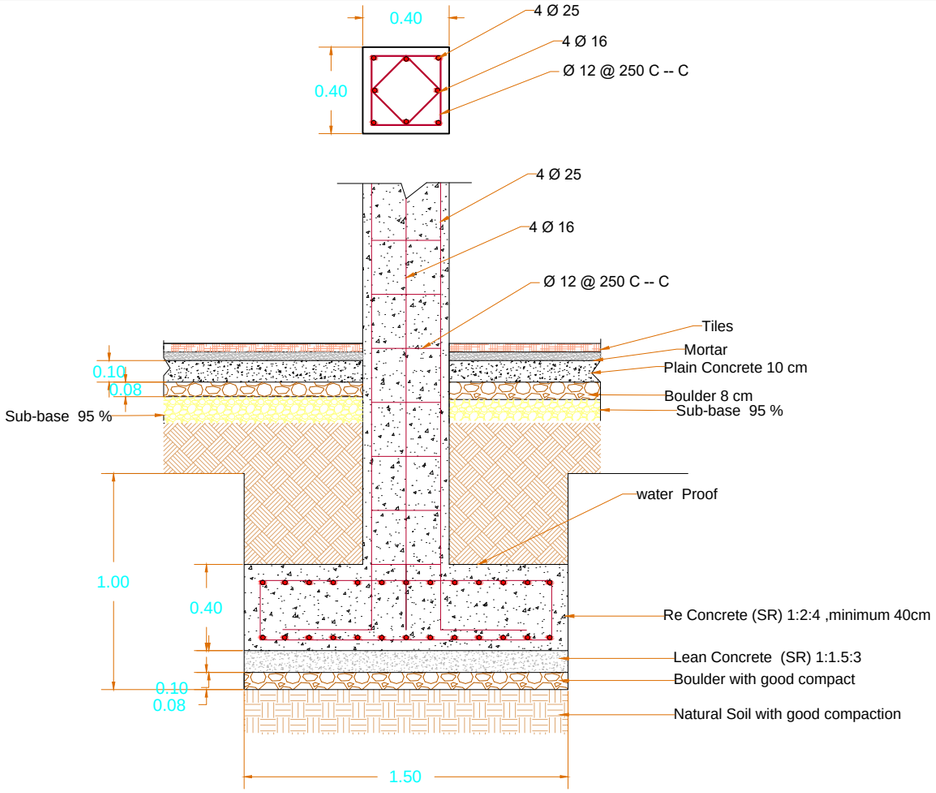



Typical drawings
for Diyala School

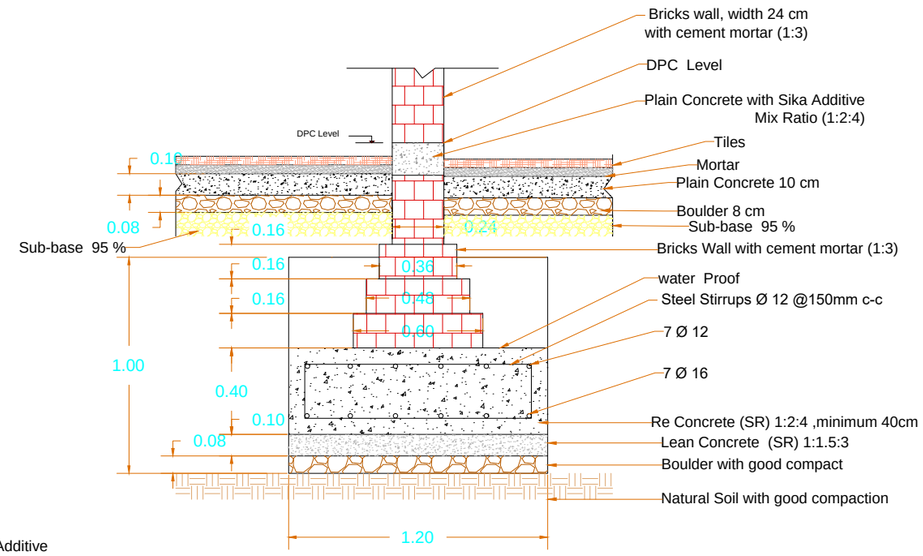
Drawn by: Eng Azad Abdulkareem

Sheet Title :
Ground Floor Plan with more Details

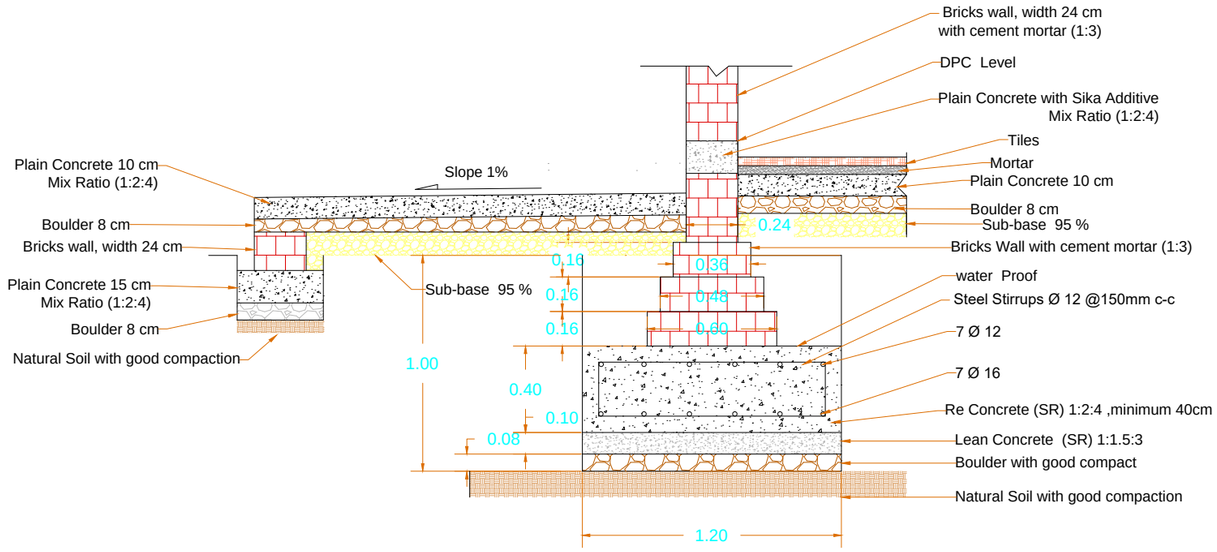
| Scale | Date | DWG |
|---|---|---|
| NTS | | No. 05 |




Section C--C
Footing Section for Column

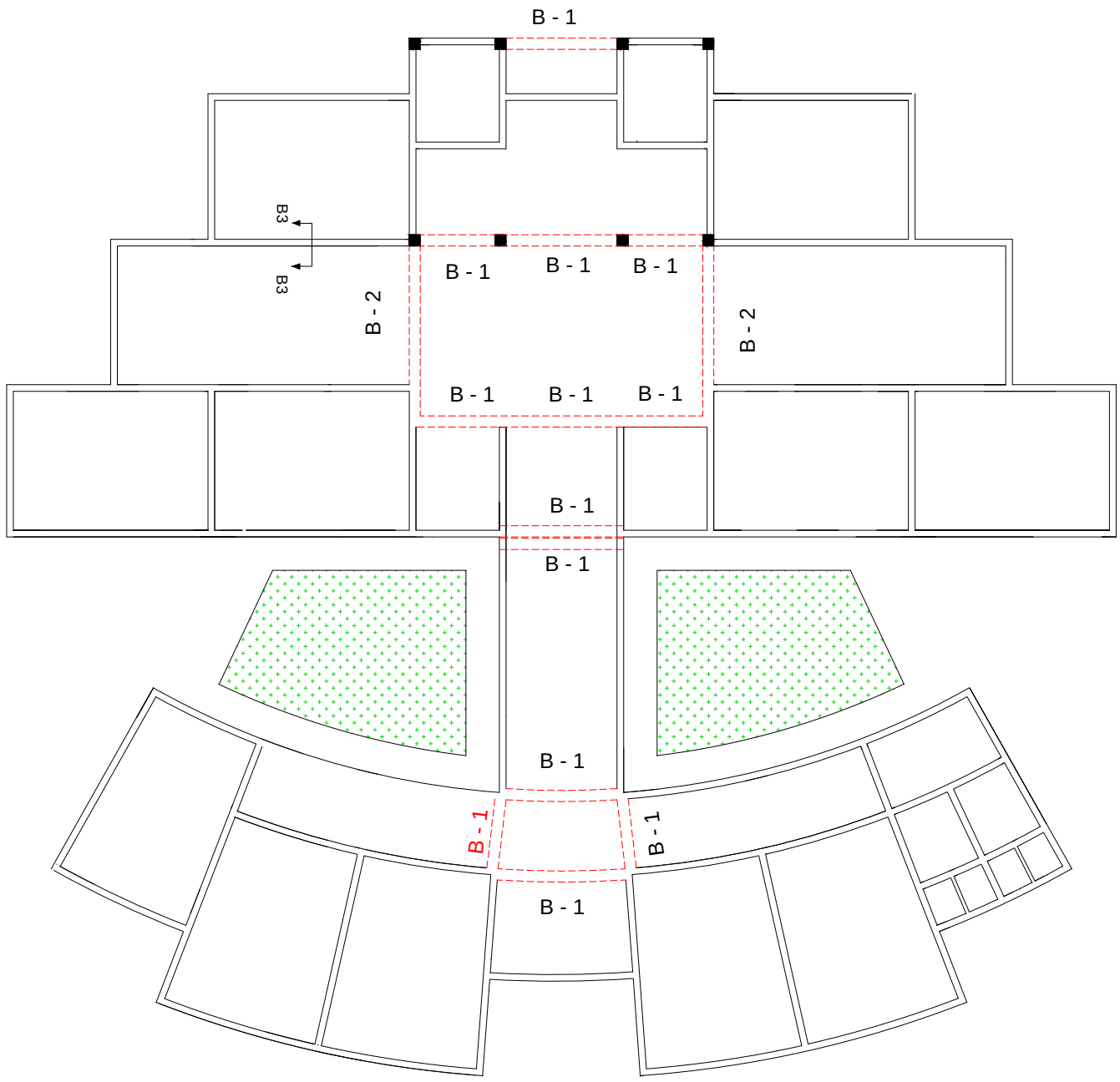



Section B--B
Footing Section for Internal Wall



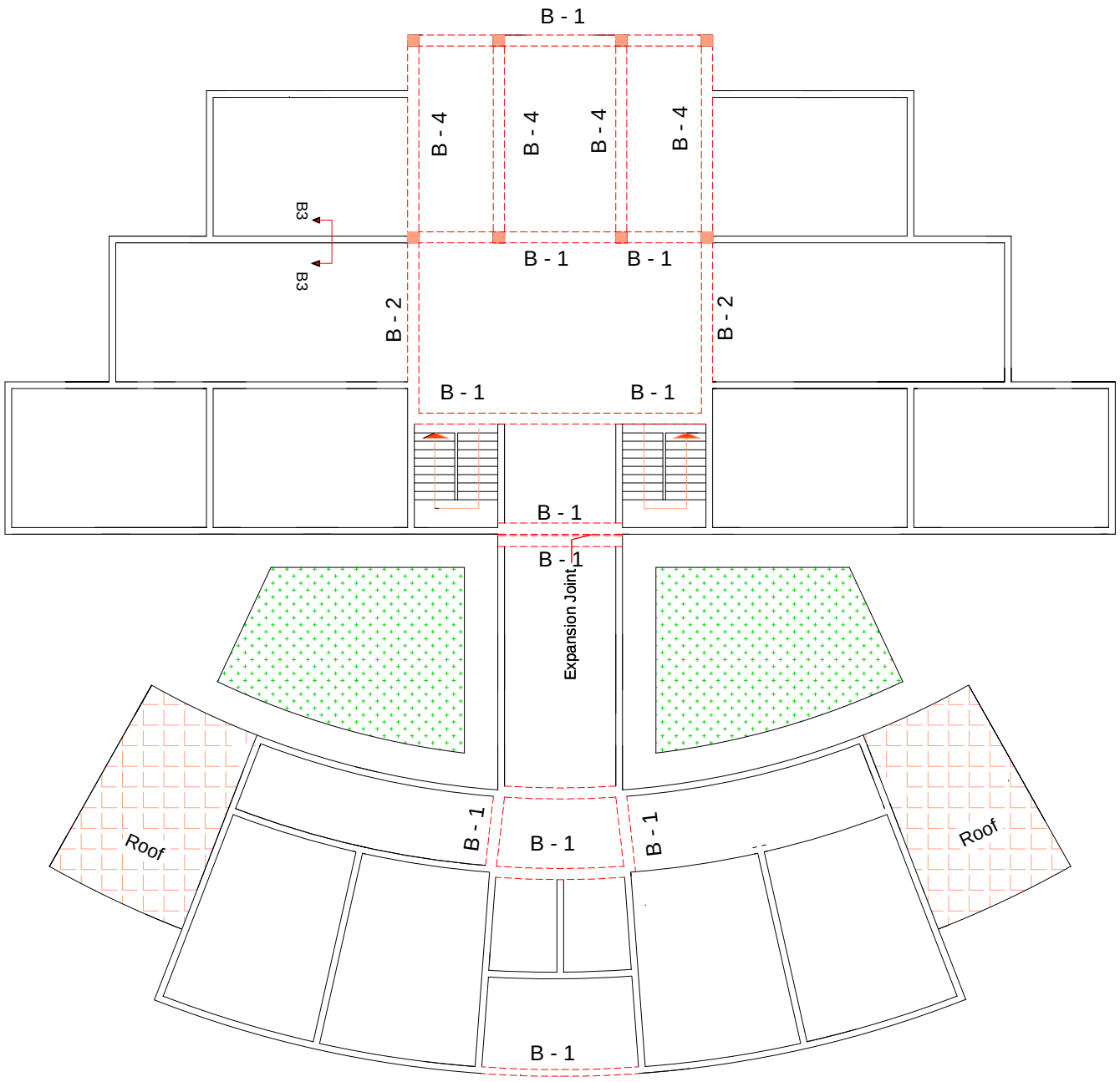

Section A--A
Footing Section for External Wall

| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title :<br>Footing Sections (A--A) (B--B) (C--C) | | |
| Scale NTS | Date | DWG No. 06 |




Beams Distribution For
Ground Floor Plan

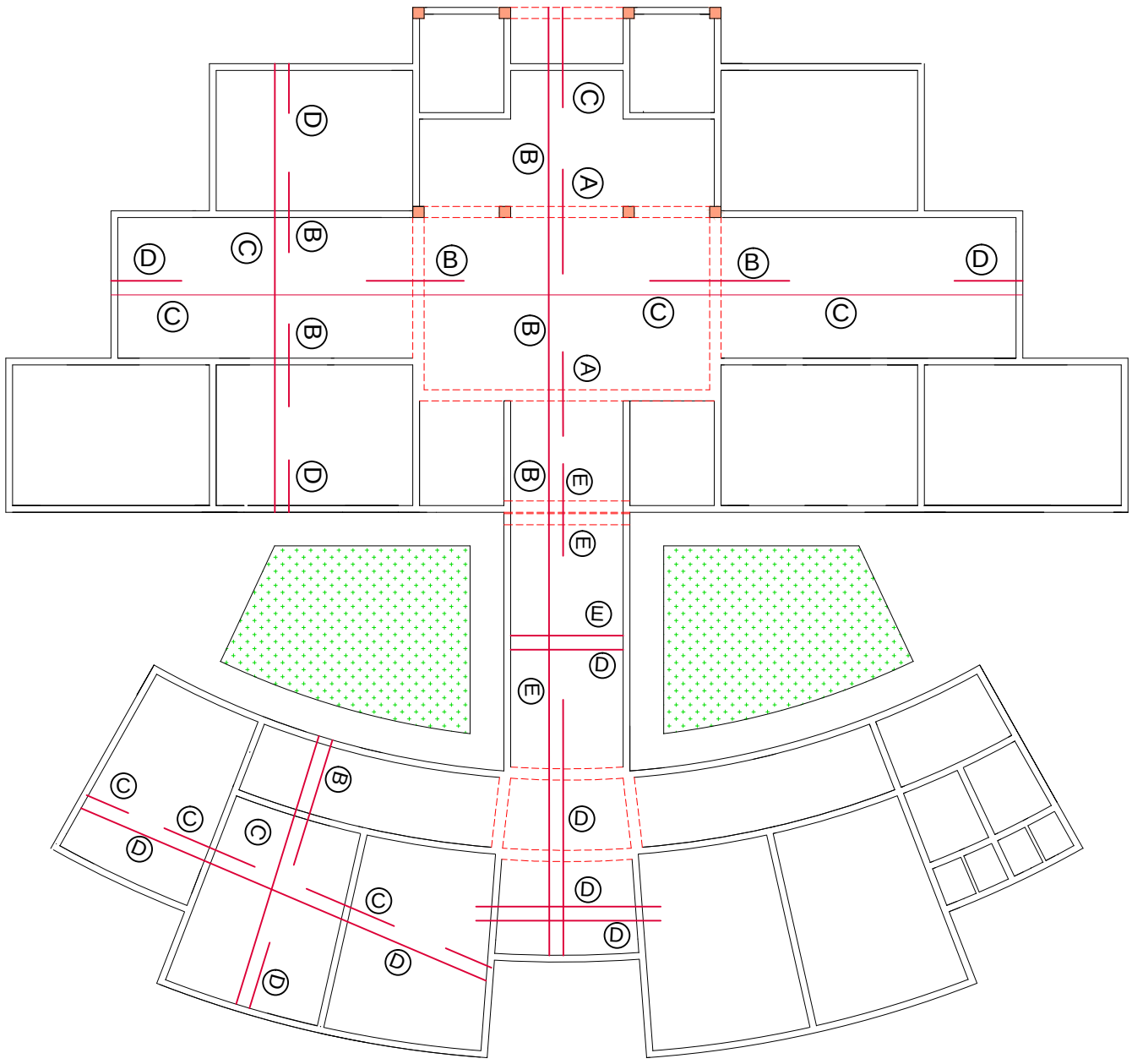
| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Beams Distribution for Ground Floor Plan | | |
| Scale NTS | Date | DWG No. 07 |




Beams Distribution For
First Floor Plan

| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Beams Distribution for First Floor Plan | | |
| Scale NTS | Date | DWG No. 08 |

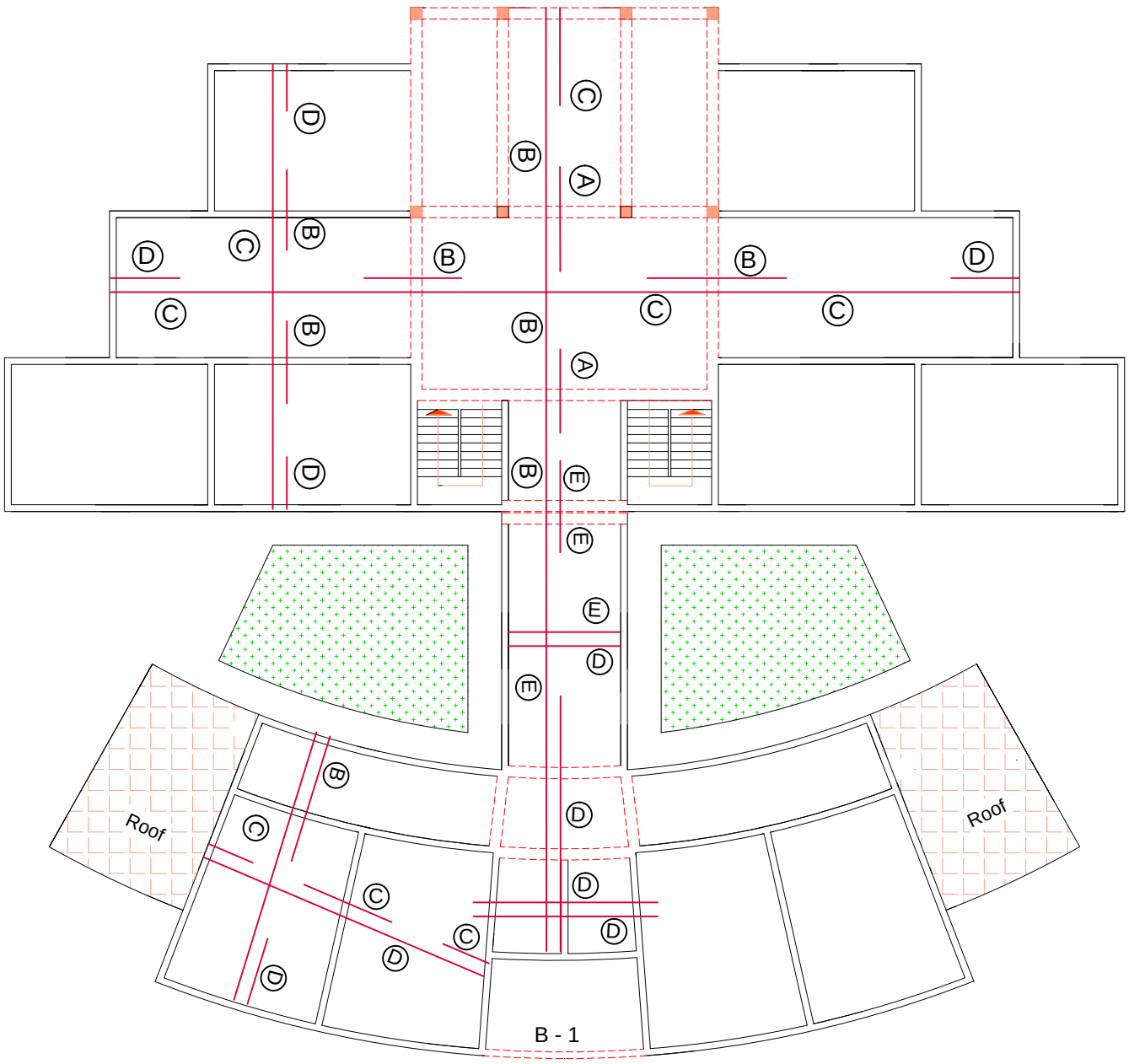
Ⓐ Ø 16 @ 200 mm C/C
Ⓑ Ø 12 @ 150 mm C/C
Ⓒ Ø 12 @ 175 mm C/C
Ⓓ Ø 12 @ 200 mm C/C
Ⓔ Ø 12 @ 250 mm C/C



Slab Reinforcement for
Ground Floor Plan

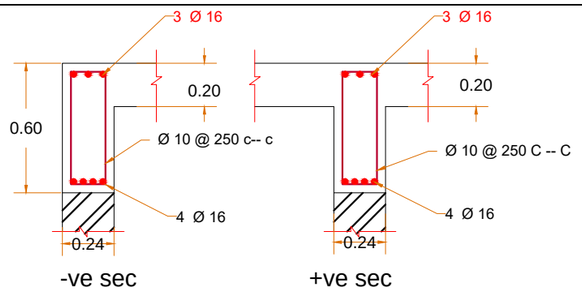
| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Slab Reinforcement for Ground Floor Plan | | |
| Scale NTS | Date | DWG No. 09 |

Ⓐ Ø 16 @ 200 mm C/C
Ⓑ Ø 12 @ 150 mm C/C
Ⓒ Ø 12 @ 175 mm C/C
Ⓓ Ø 12 @ 200 mm C/C
Ⓔ Ø 12 @ 250 mm C/C



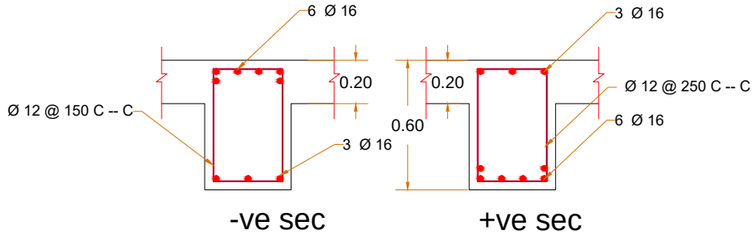

Slab Reinforcement for
First Floor Plan

| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Slab Reinforcement for First Floor Plan | | |
| Scale NTS | Date | DWG No. 10 |

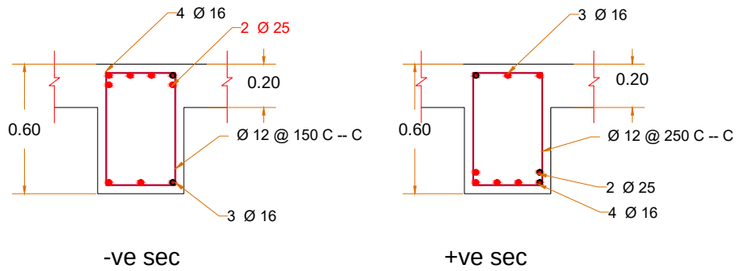



Continuous tie Beams over
Bricks wall

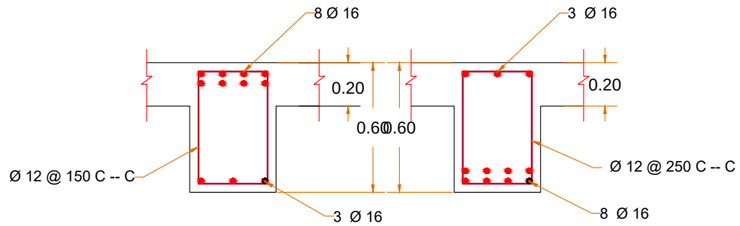
Section for B - 3



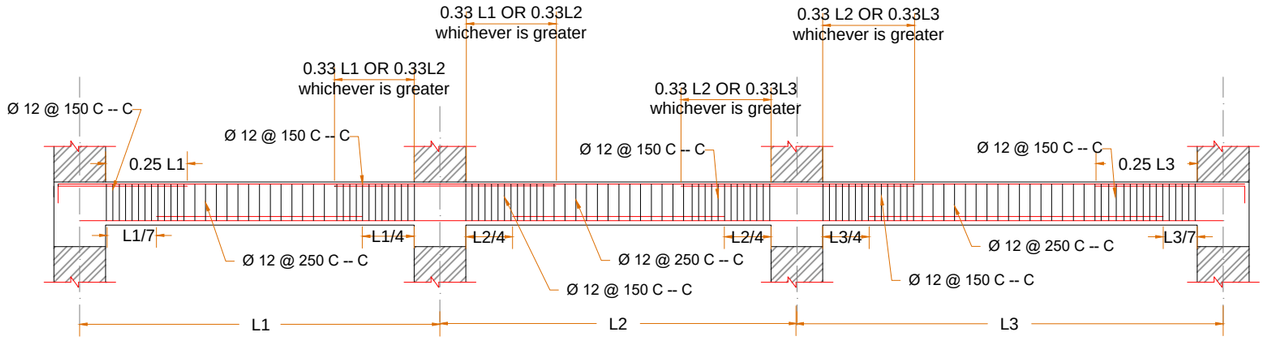

Section for B - 1




Section for B - 4

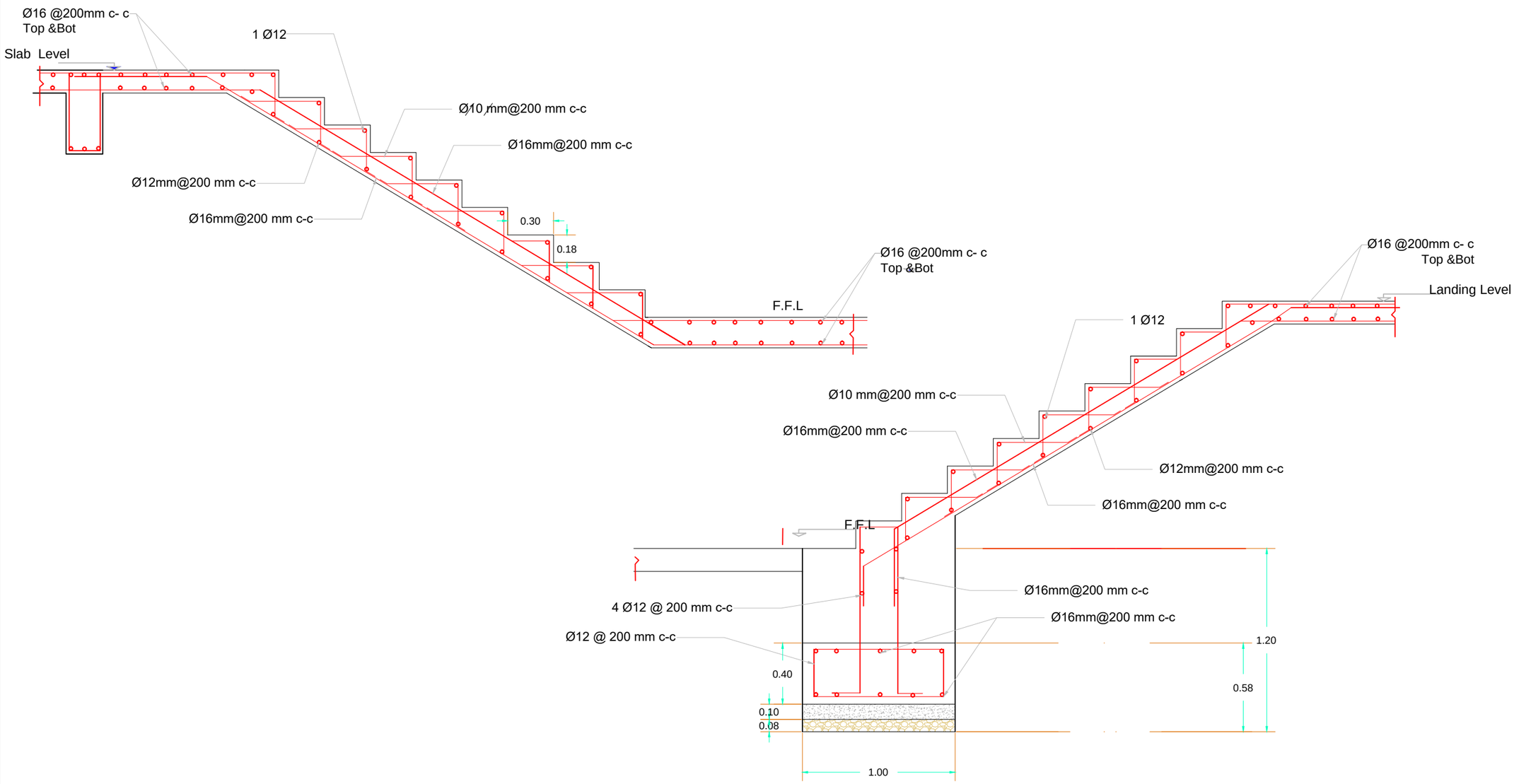



Section for B - 2



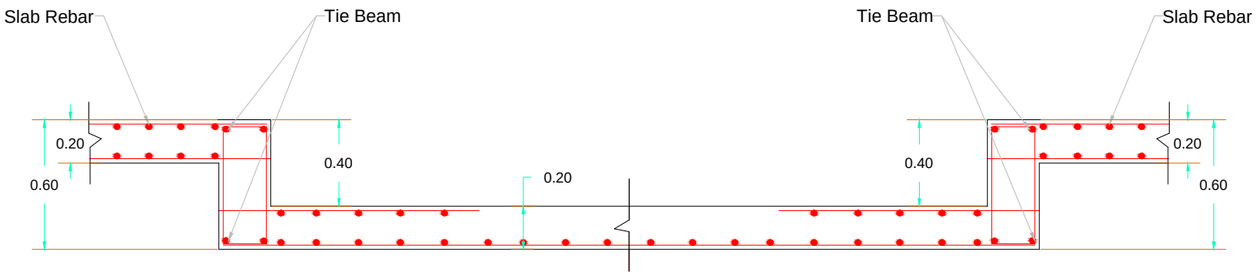

Approximate Cut Off Points at Beams &Slab Reinforcment

| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title :<br>Beams Section B1, B2, B3, B4 | | |
| Scale NTS | Date | DWG No. 11 |

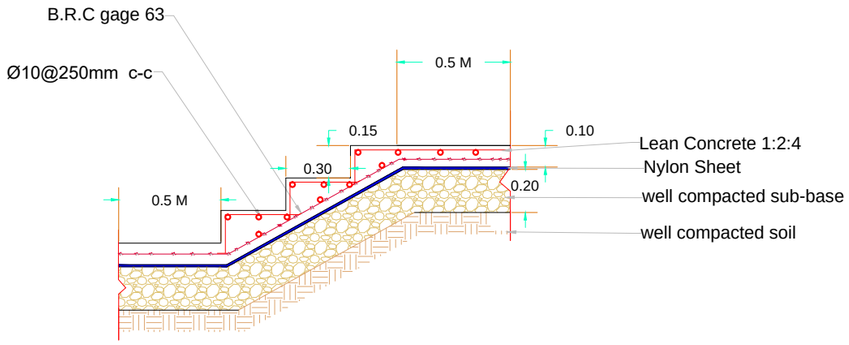



# Section at stairs
# all dimensions are not to scale

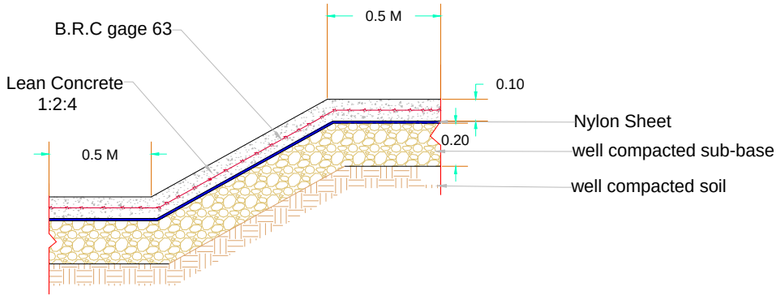
| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Stair Plan | | |
| Scale NTS | Date | DWG No. 12 |




Typical Section at Drop Panel

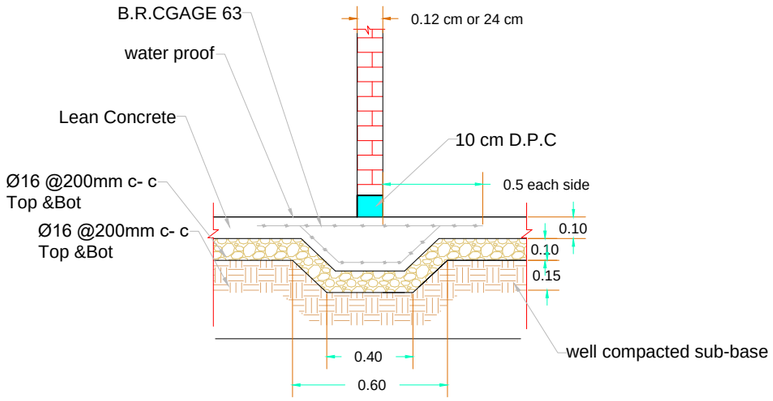



Detail of External Step

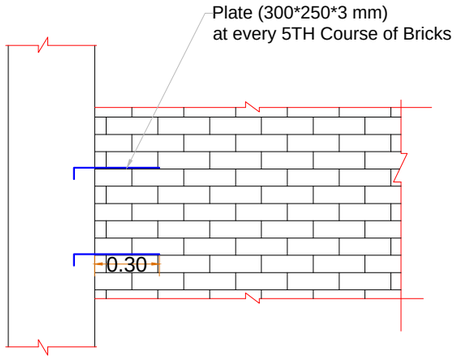



Detail of Ramp

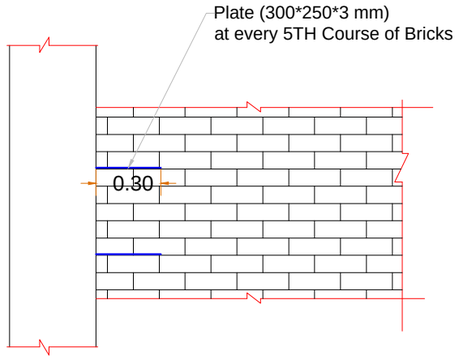
| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title :<br>Details for External Stair & Ramp Plan | | |
| Scale NTS | Date | DWG No. 13 |




Typical Section for Partition Footing

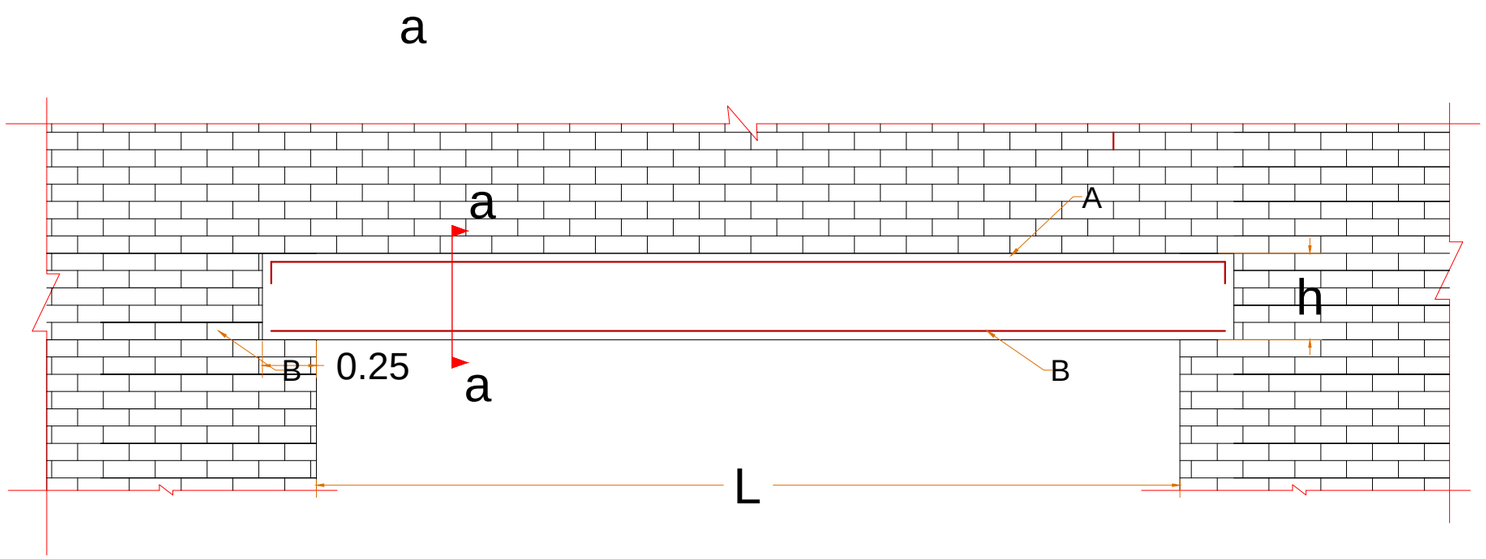



Connection between Brick Wall
and R.C Column
proposal 1

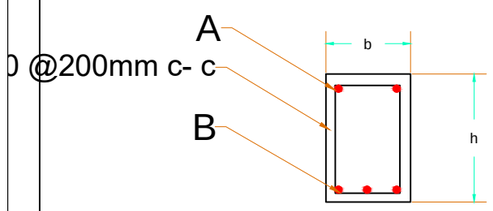


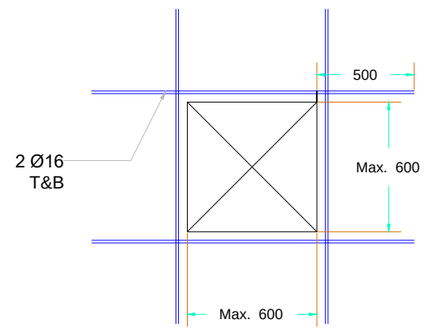

Connection between Brick Wall
and R.C Column
proposal 2

| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Details for connection between wall and R.C column | | |
| Scale NTS | Date | DWG No. 14 |




# Lintel Reinforcement




Typical Reinf. around Openning Up to 600

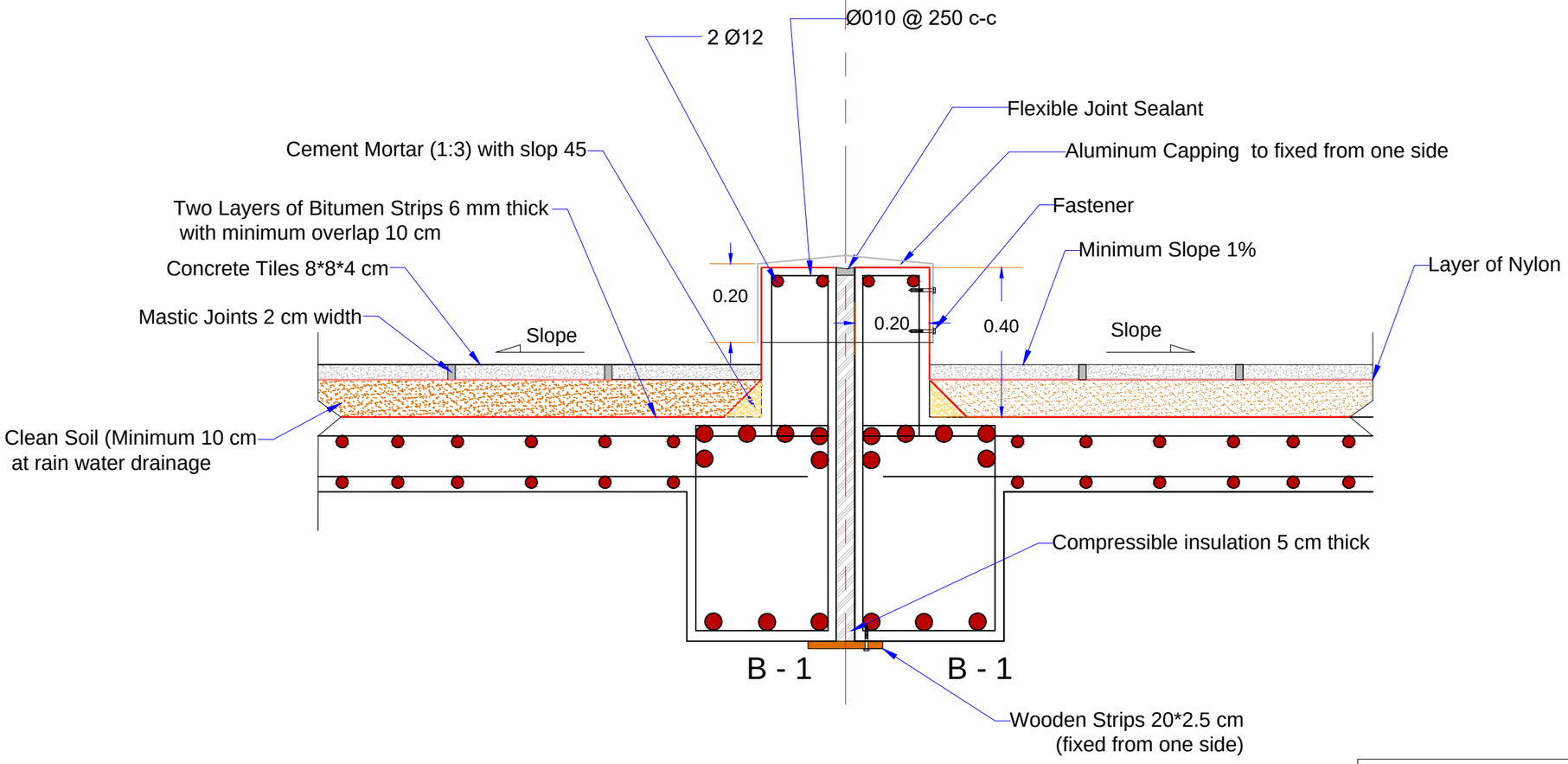
| Typical Lintels Above Opening | | | | |
|---|---|---|---|---|
| Clear Span L (mm) | Section b*h (mm) | Top Bars | Bottom Bars | Stirrups |
| 1000 | 240*150 | 3 Ø 12 | 3 Ø 12 | Ø 10 @200 c-c |
| 1500 | 240*240 | 3 Ø 12 | 3 Ø 12 | Ø 10 @200 c-c |
| 2000 | 240*300 | 3 Ø 12 | 4 Ø 12 | Ø 10 @200 c-c |
| 2500 | 240*300 | 3 Ø 12 | 3 Ø 16 | Ø 10 @200 c-c |
| 3000 | 240*300 | 3 Ø 12 | 3 Ø 16 | Ø 10 @200 c-c |
| 3500 | 240*350 | 3 Ø 16 | 4 Ø 16 | Ø 10 @200 c-c |

Typical drawings for Diyala School

Drawn by: Eng Azad Abdulkareem

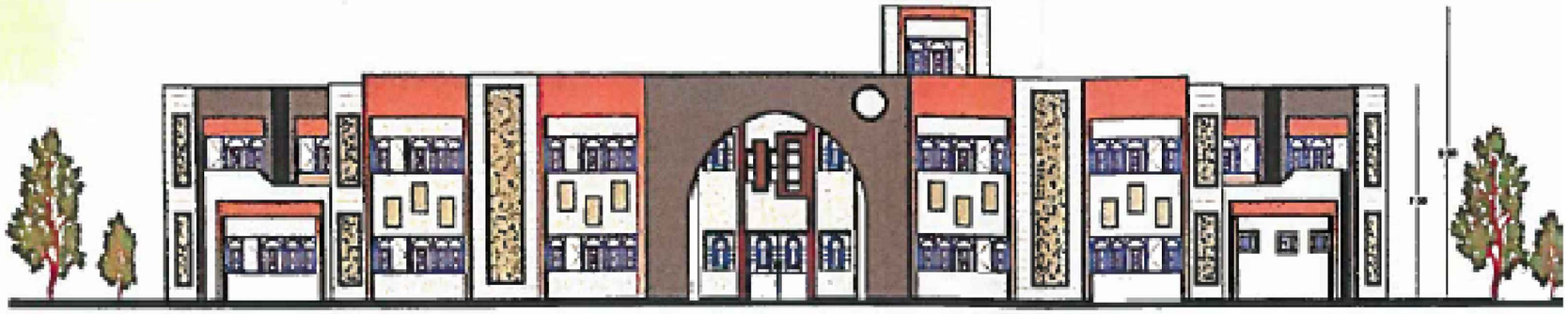
Sheet Title : Details of Lintels Reinforcement

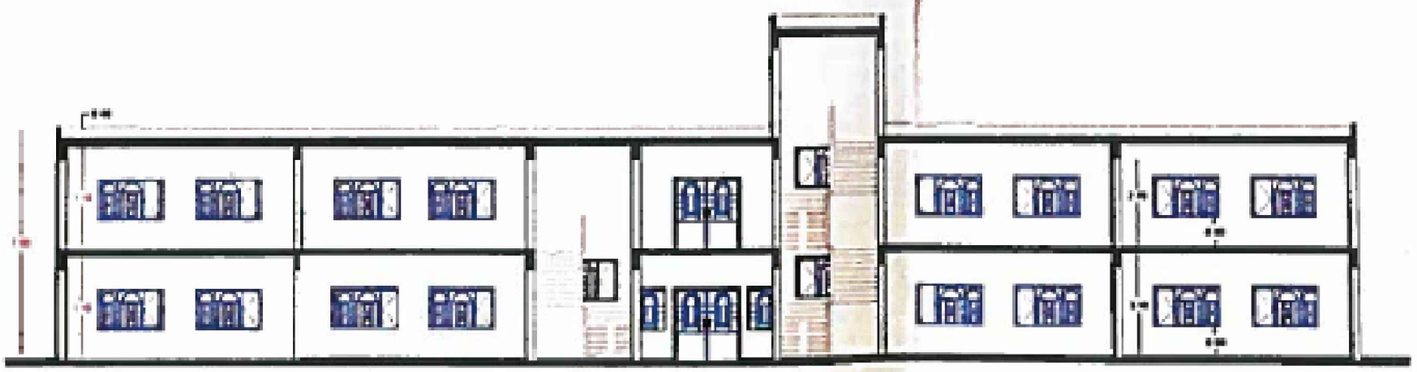
| Scale NTS | Date | DWG No. 15 |
|---|---|---|




# Details of Expansion Joint

| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Detail of Expansion Joint | | |
| Scale NTS | Date | DWG No. 16 |





| | | |
|---|---|---|
| Typical drawings for Diyala School | | |
| Drawn by: Eng Azad Abdulkareem | | |
| Sheet Title : Elevation &Sections | | |
| Scale NTS | Date | DWG No. 17 |